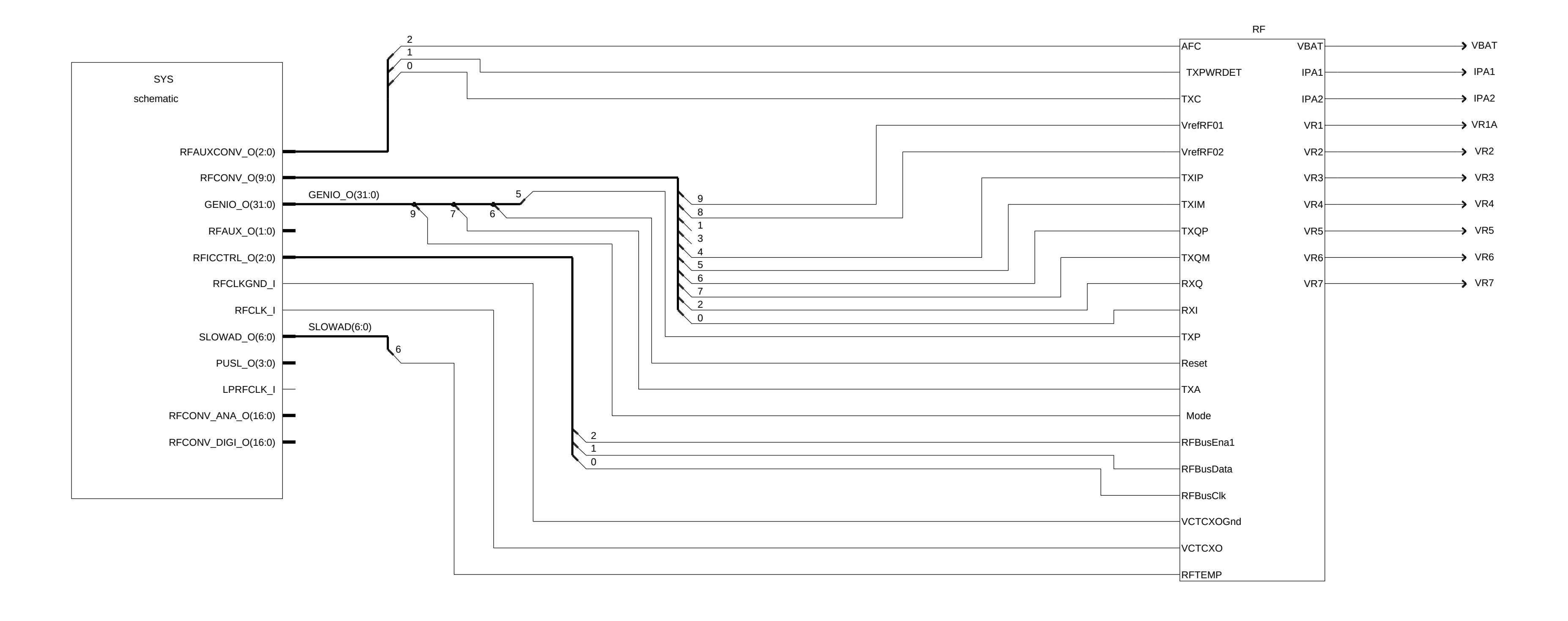
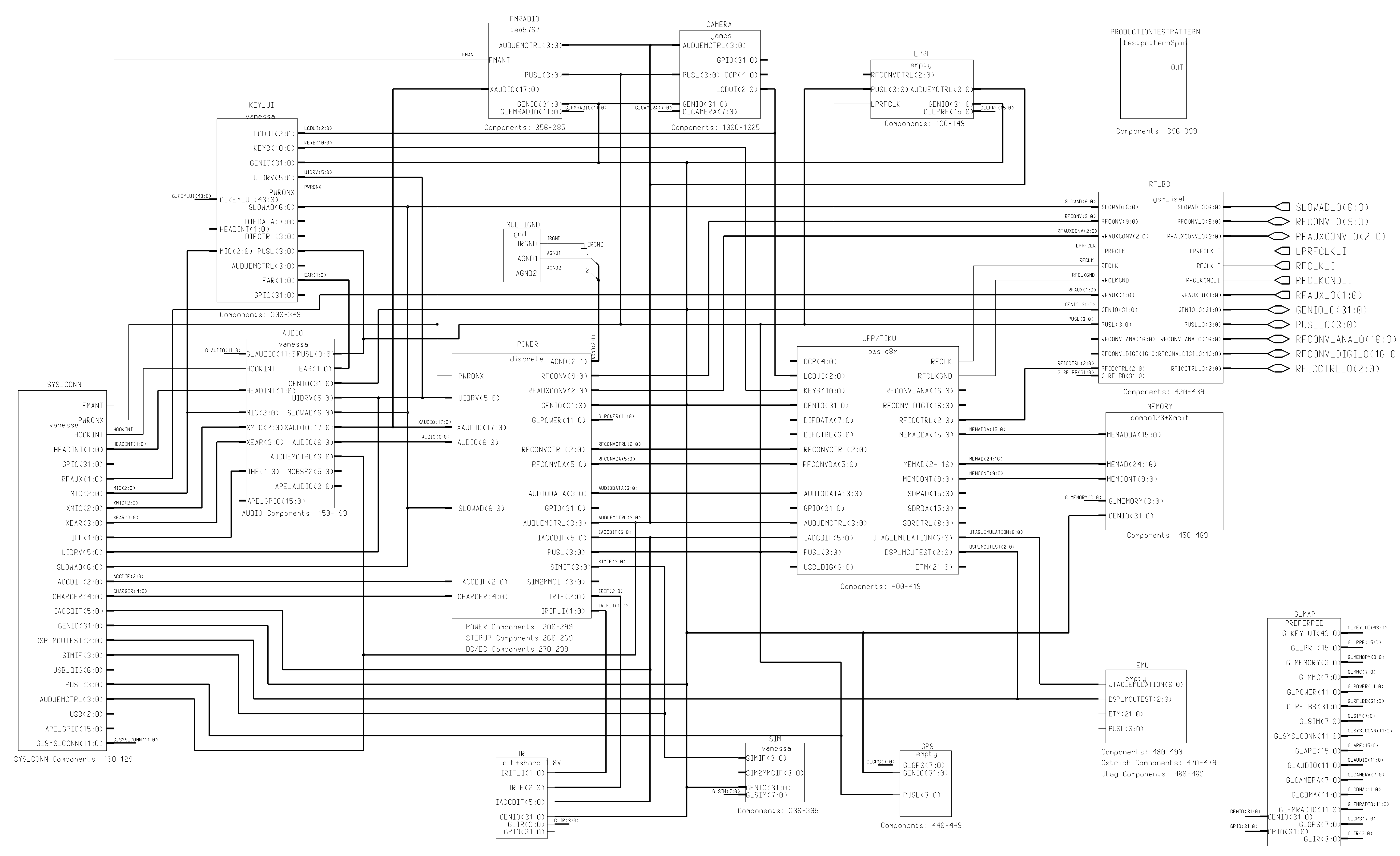
RM-37 Top Level



DCT4 Common BB



GENIO and GPIO Connection Block

GENIO(31:0)

GPIO(31:0)

G_APE(15:0)

G_AUDIO(11:0)

G_CAMERA(7:0)

G_CDMA(11:0)

G_FMRADIO(11:0)

G_GPS(7:0)

G_IR(3:0)

G_KEY_UI(43:0)

G_LPRF(15:0)

G_MEMORY(3:0)

G_MMC(7:0)

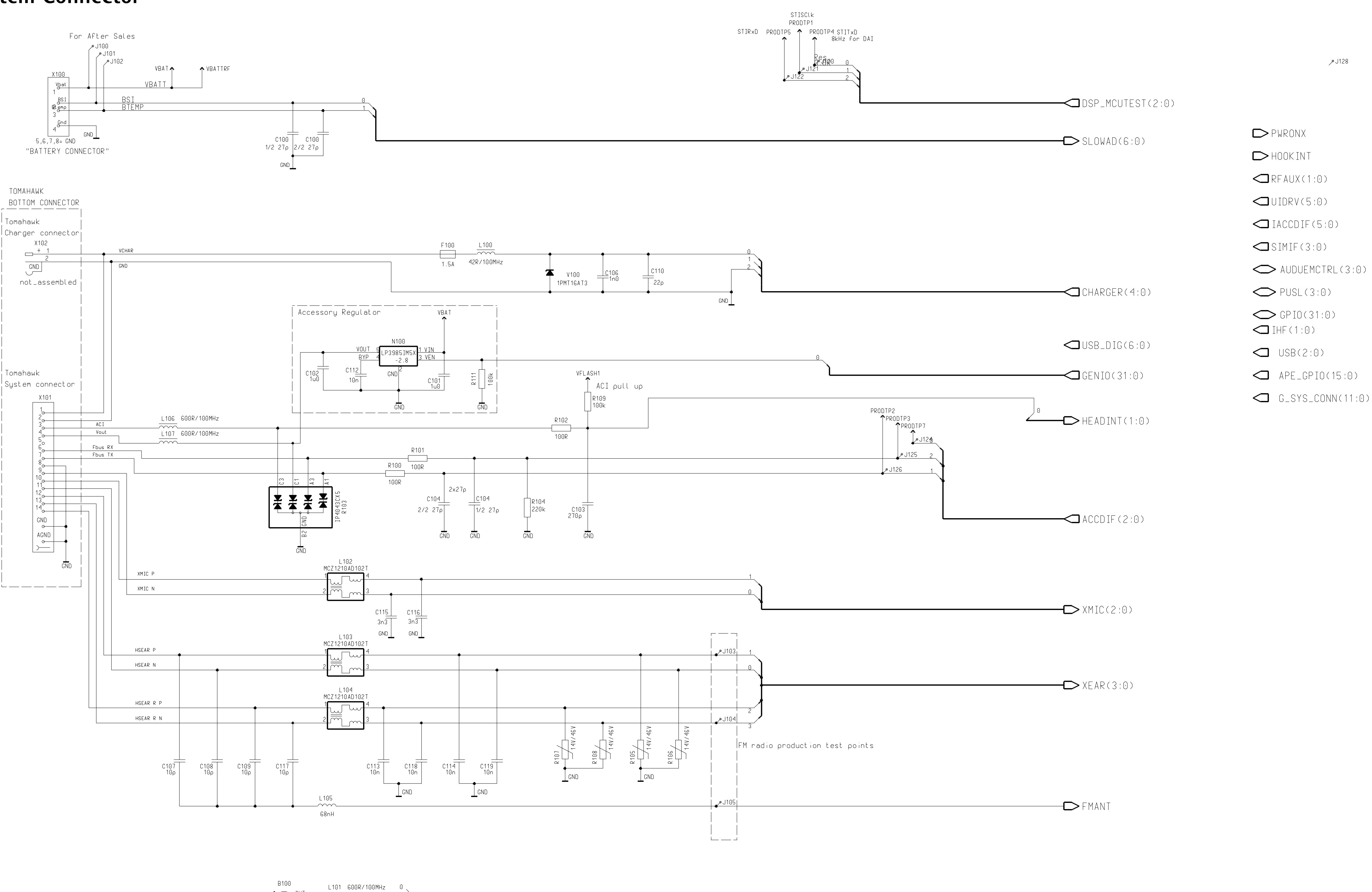
G_POWER(11:0)

G_RF_BB(31:0)

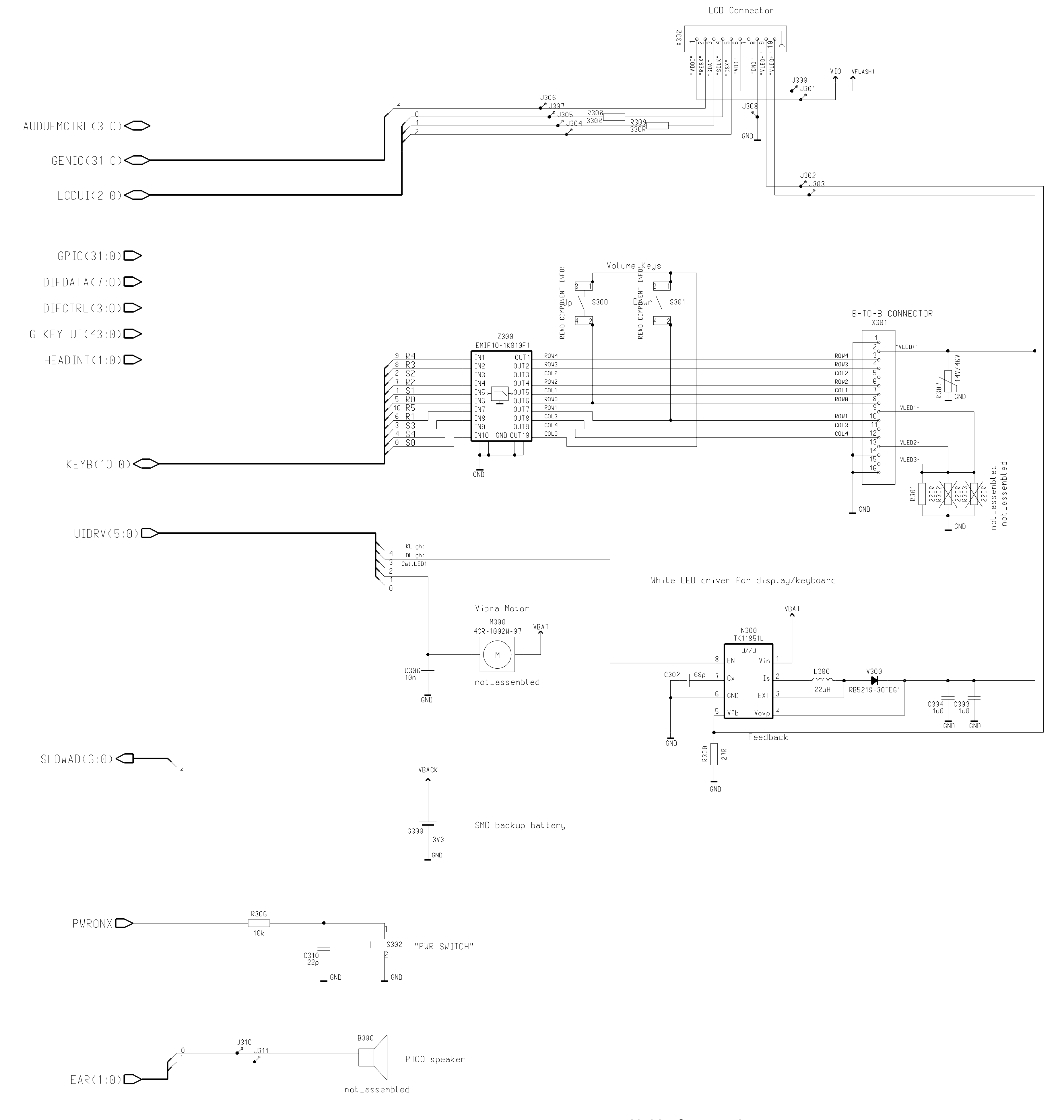
G_SIM(7:0)

G_SYS_CONN(11:0)

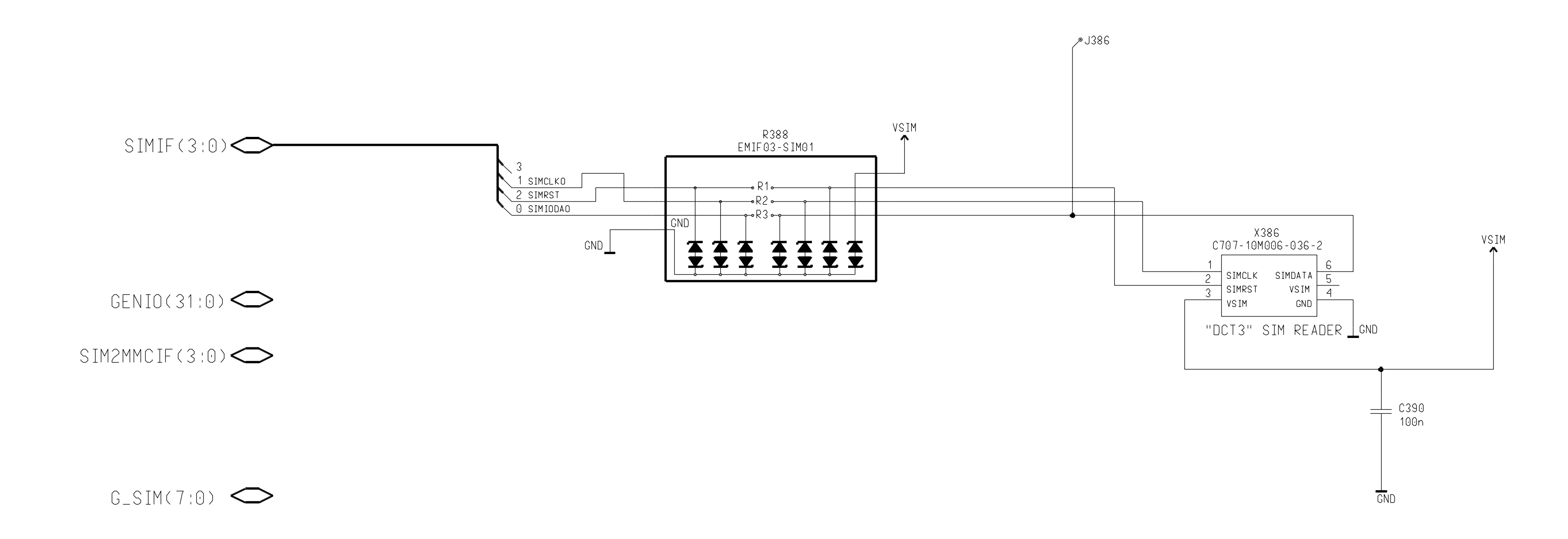
System Connector



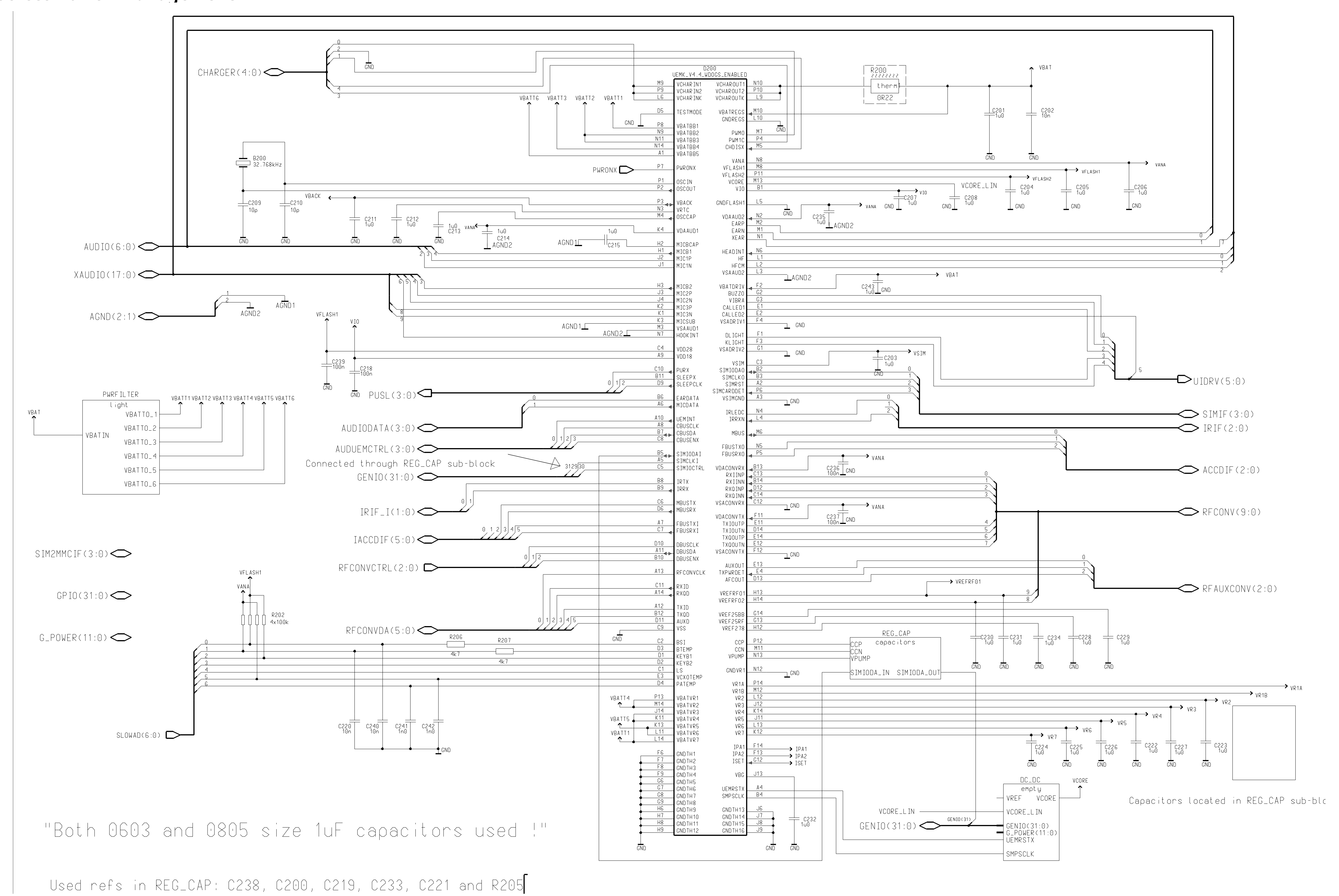
UI


MIC(2:0)
PUSL(3:0)
LCD Connector
X302
AUDUEMCTRL(3:0)
GENIO(31:0)
LCDUI(2:0)
GPIO(31:0)
DIFDATA(7:0)
DIFCTRL(3:0)
G_KEY_UI(43:0)
HEADINT(1:0)
KEYB(10:0)
Volume Keys
S300
S301
Up
Down
Z300
EMIF10-1K010F1
B-TO-B CONNECTOR
X301
UIDRV(5:0)
KLight
DLight
CallLED1
White LED driver for display/keyboard
Vibra Motor
M300
4CR-1002W-07
not_assembled
N300
TK11851L
L300
22uH
V300
RB521S-30TE61
Feedback
SLOWAD(6:0)
VBACK
SMD backup battery
PWRONX
R306
10k
S302
"PWR SWITCH"
EAR(1:0)
B300
PICO speaker
not_assembled

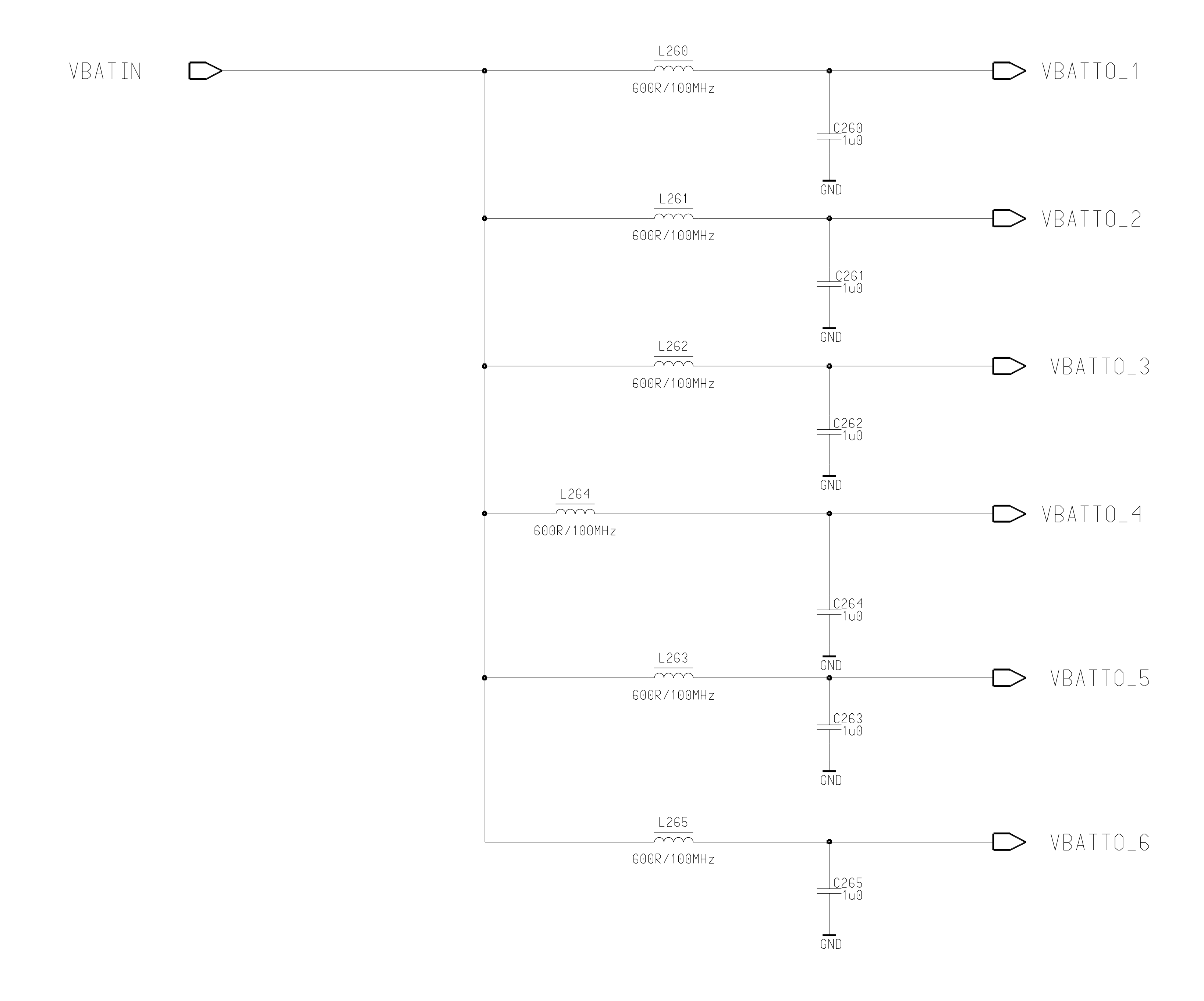
SIM Reader


SIMIF(3:0)
GENIO(31:0)
SIM2MMCIF(3:0)
G_SIM(7:0)
3
1 SIMCLKO
2 SIMRST
0 SIMIODAO
R388
EMIF03-SIM01
R1
R2
R3
GND
GND
VSIM
J386
X386
C707-10M006-036-2
1
2
3
SIMCLK
SIMRST
VSIM
SIMDATA
VSIM
GND
6
5
4
"DCT3" SIM READER
GND
VSIM
C390
100n
GND

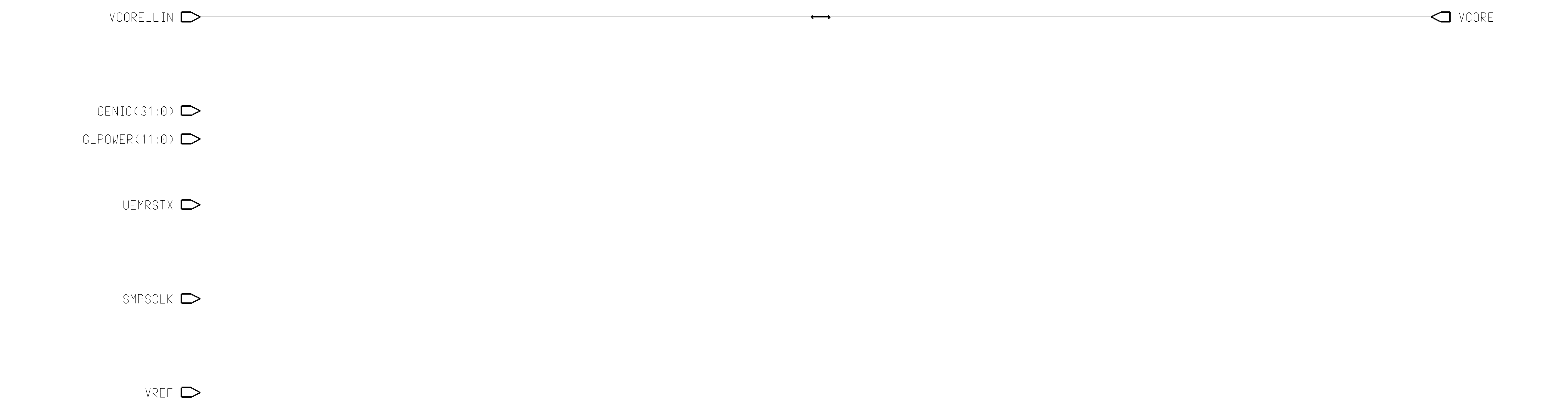
Discrete Power Management



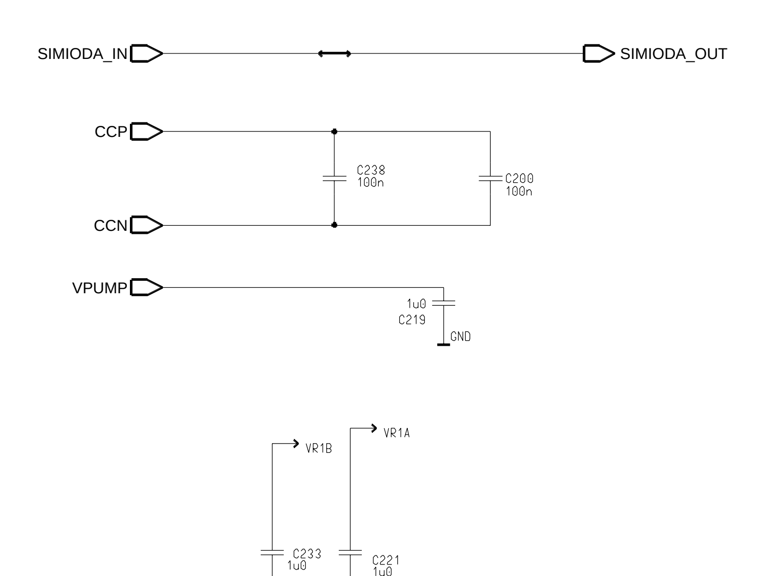
Light Filtering



DC/DC Converter

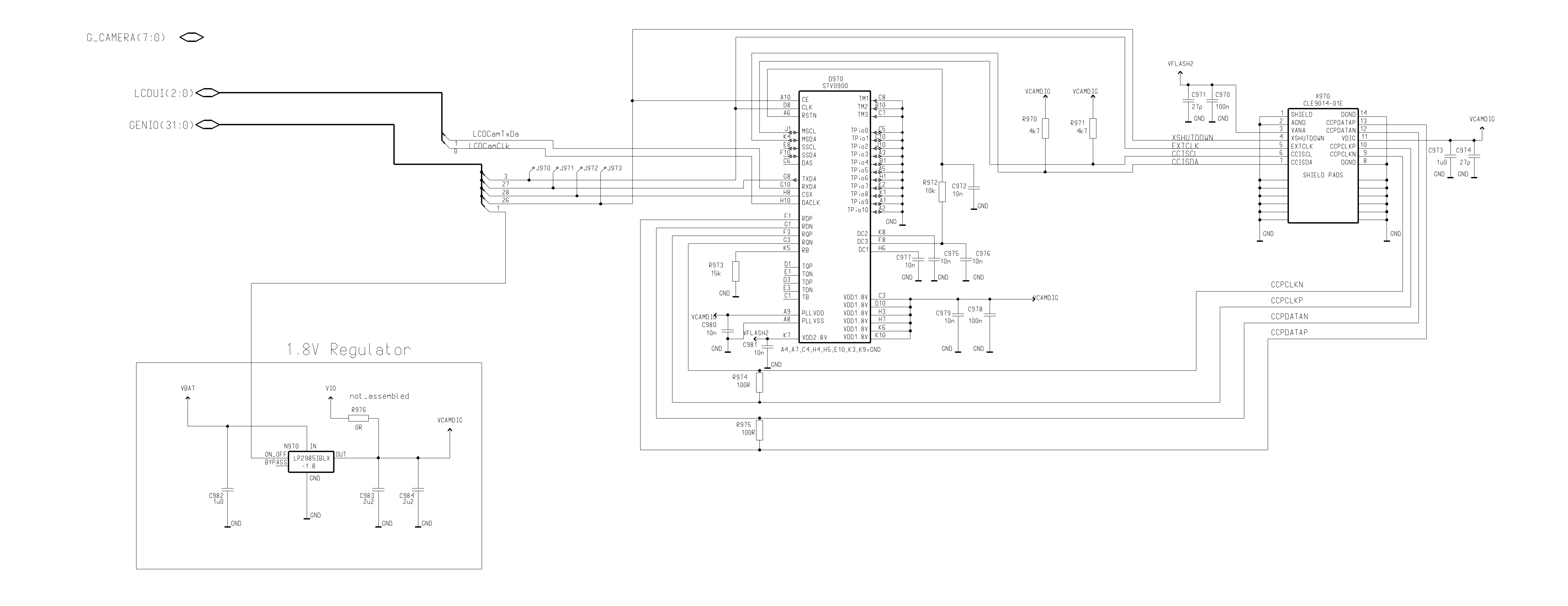


Old Power Discrete

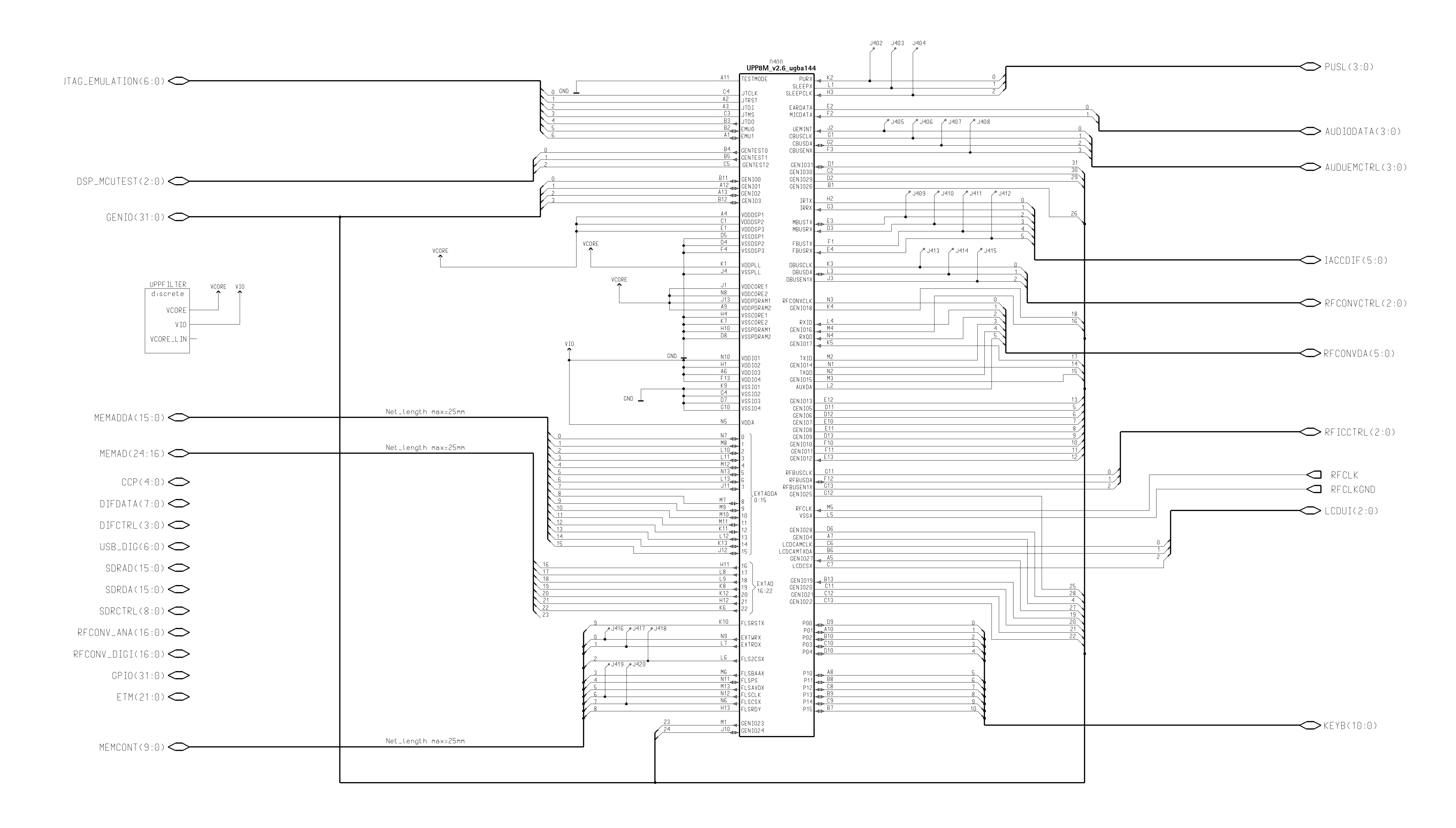


Camera

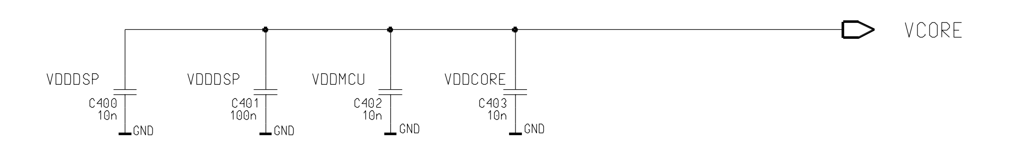
GPIO(31:0)
AUDUEMCTRL(3:0)
CCP(4:0)
PUSL(3:0)



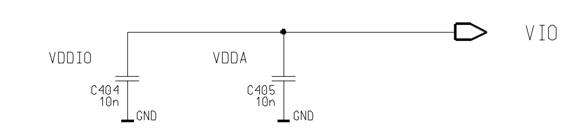
UPP 8M Implementation



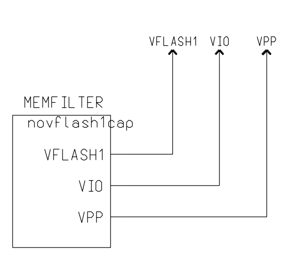
Decoupling Capacitors for UPP



VCORE_LIN



Combo Memory



MEMEXTENSION
empty
MEMADDA(15:0)
MEMAD(24:16)
MEMCONT(9:0)
GENIO(31:0)
G_MEMORY(3:0)
FLS2CSX

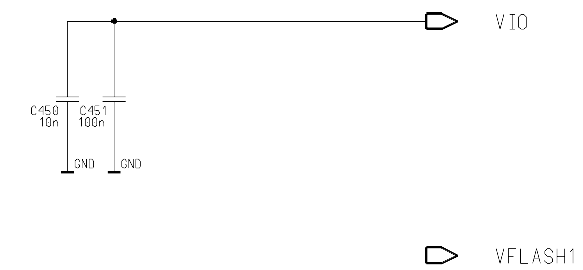
MEMWING
empty
GENIO(31:0)
G_MEMORY(3:0)
MEMAD(24:16)
MEMADDA(15:0) FLS2CSX
MEMCONT(9:0) FLSCSX

GENIO(31:0)
MEMAD(24:16)
MEMCONT(9:0)
MEMADDA(15:0)
G_MEMORY(3:0)

D450
NMP_DCT4_128MNOR_8MSRAM
FLASHM 8Mx16
SRAM 512kx16
FLASH/SRAM
A21/_LB
A22/_UB
_WP/_CS
FLASH
CLK RDY
_RESET
_CEF
COMMON
_AVD
_WE
_OE
PS
ADDRESS/DATA I/O
A5,B1,D8=VIO
A7=VPP
A3,B10,C1,D3=GND

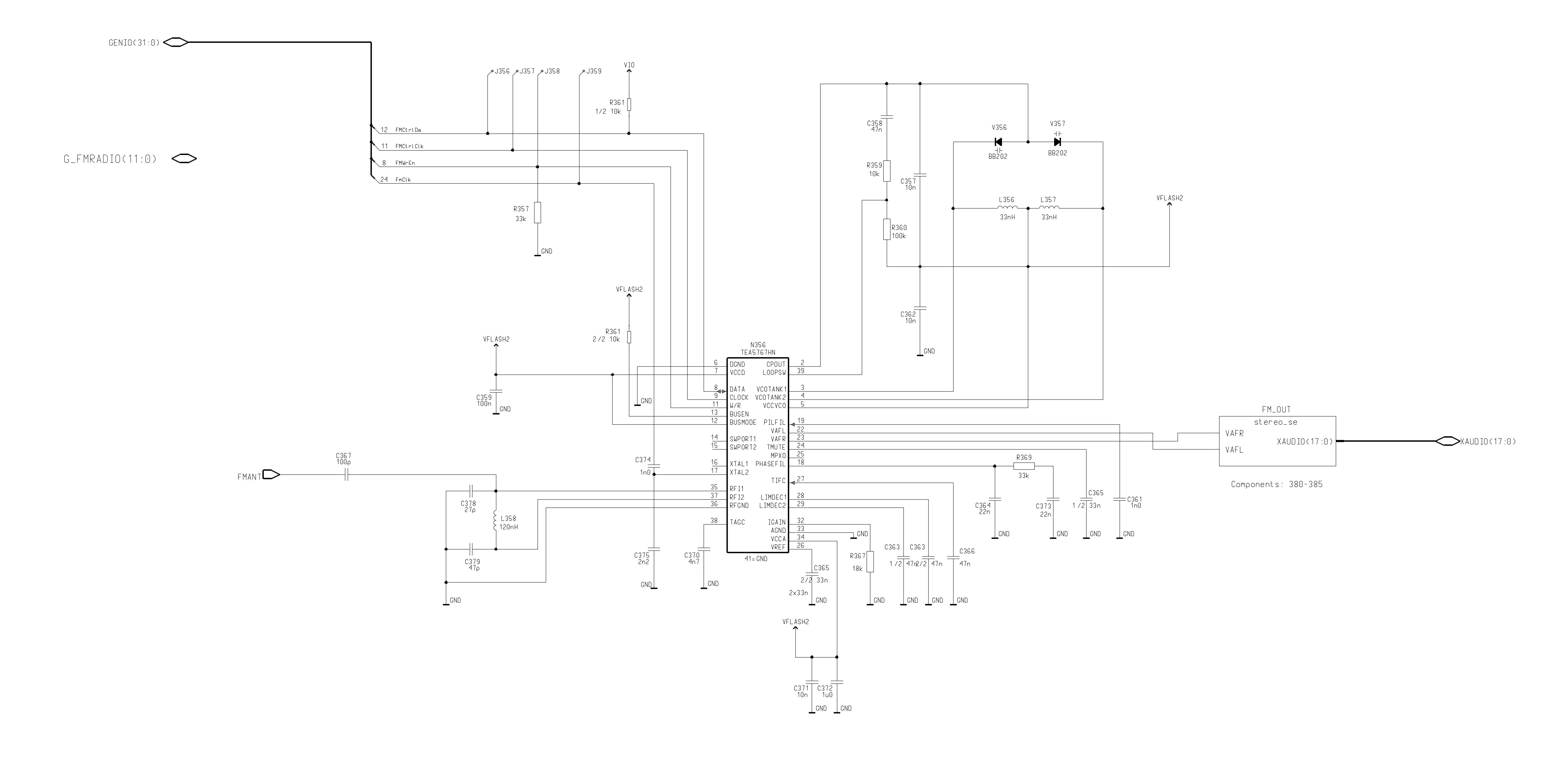
R450
4k7
VPP
PRODTP6
E450
E451 E452 E453 E454 E455 E456 E457 E458

Memory Without VFLASH1

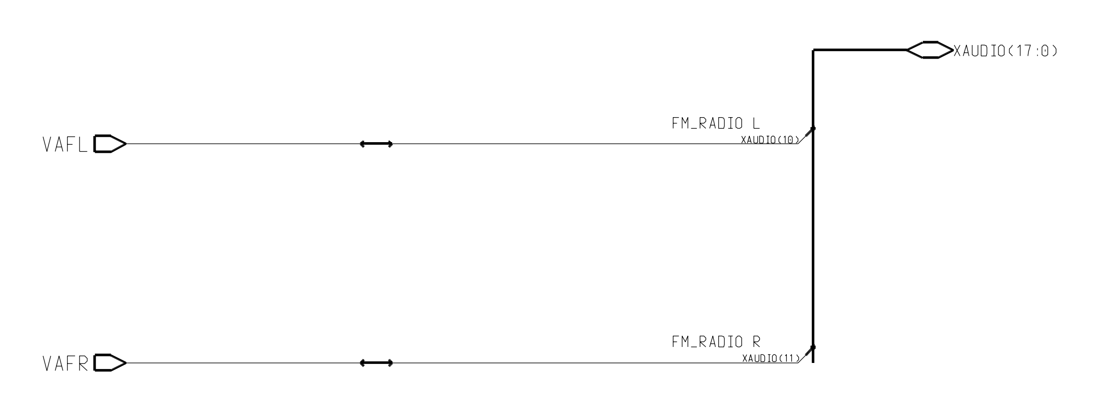




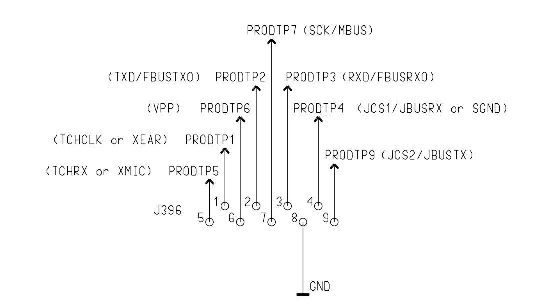
FM Radio


FMClk = GENIO(24)
GENIO(31:0)
G_FMRADIO(11:0)
J356
J357
J358
J359
VIO
R361
1/2 10k
12 FMCtrlDa
11 FMCtrlClk
8 FMWrEn
24 FmClk
R357
33k
GND
VFLASH2
R361
2/2 10k
C359
100n
N356
TEA5767HN
DGND
VCCD
DATA
CLOCK
W/R
BUSEN
BUSMODE
SWPORT1
SWPORT2
XTAL1
XTAL2
RFI1
RFI2
RFGND
TAGC
CPOUT
LOOPSW
VCOTANK1
VCOTANK2
VCCVCO
PILFIL
VAFL
VAFR
TMUTE
MPXO
PHASEFIL
TIFC
LIMDEC1
LIMDEC2
IGAIN
AGND
VCCA
VREF
41=GND
C358
47n
R359
10k
C357
10n
R360
100k
C362
10n
V356
BB202
V357
BB202
L356
33nH
L357
33nH
FMANT
C367
100p
C378
27p
L358
120nH
C379
47p
C374
1n0
C375
2n2
C370
4n7
C365
2/2 33n
2x33n
R367
18k
C363
1/2 47n
C363
2/2 47n
C366
47n
R369
33k
C364
22n
C373
22n
C365
1/2 33n
C361
1n0
C371
10n
C372
1u0
FM_OUT
stereo_se
VAFR
VAFL
XAUDIO(17:0)
Components: 380-385
AUDUEMCTRL(3:0)
PUSL(3:0)
Notice:
C374 (1n0) and C375 (2n2) are configured for 32kHz reference clock
If reference clock is 6.5MHz, use C374 (3p9) and C375 (10p)

FM Radio Out

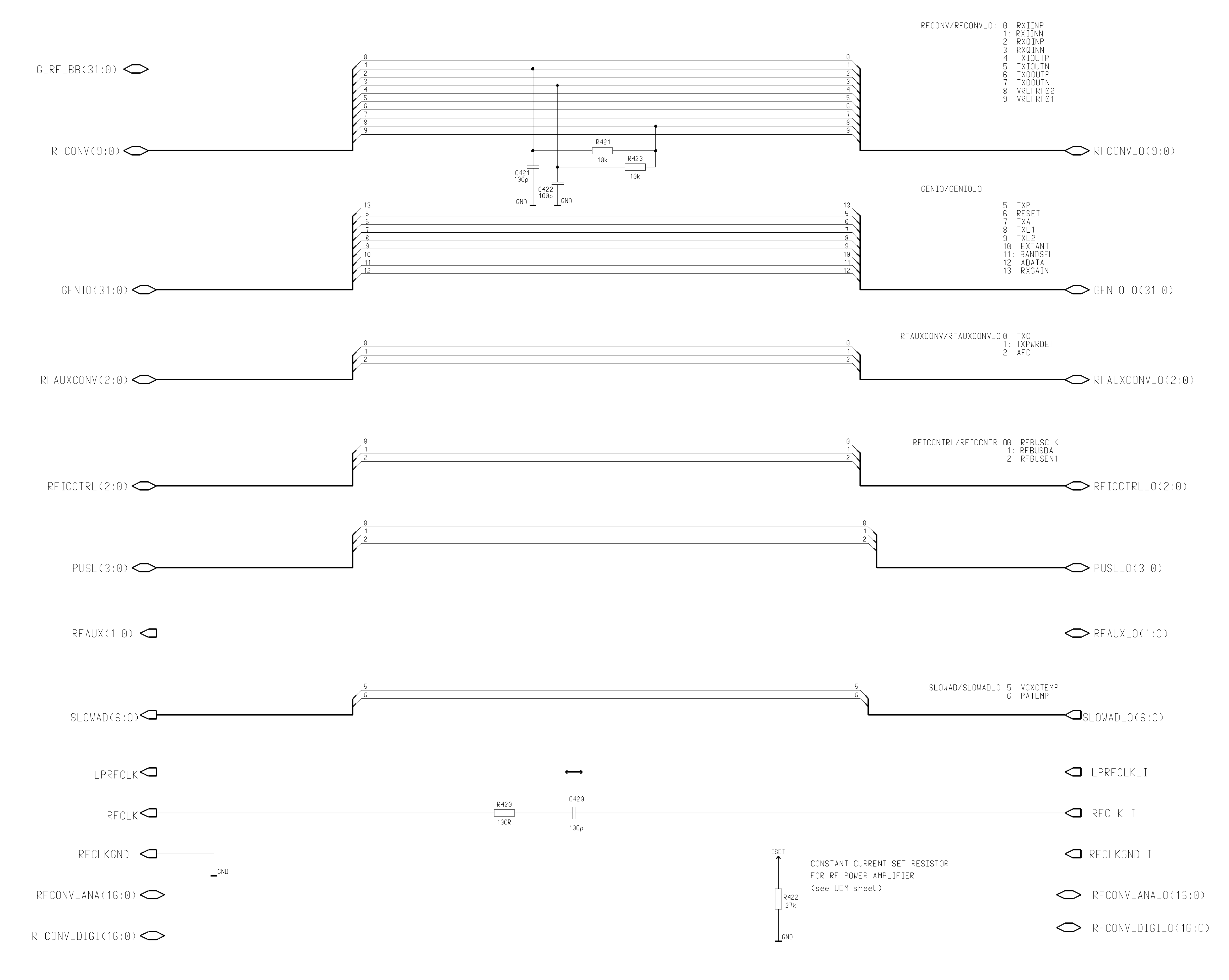


Test Pattern

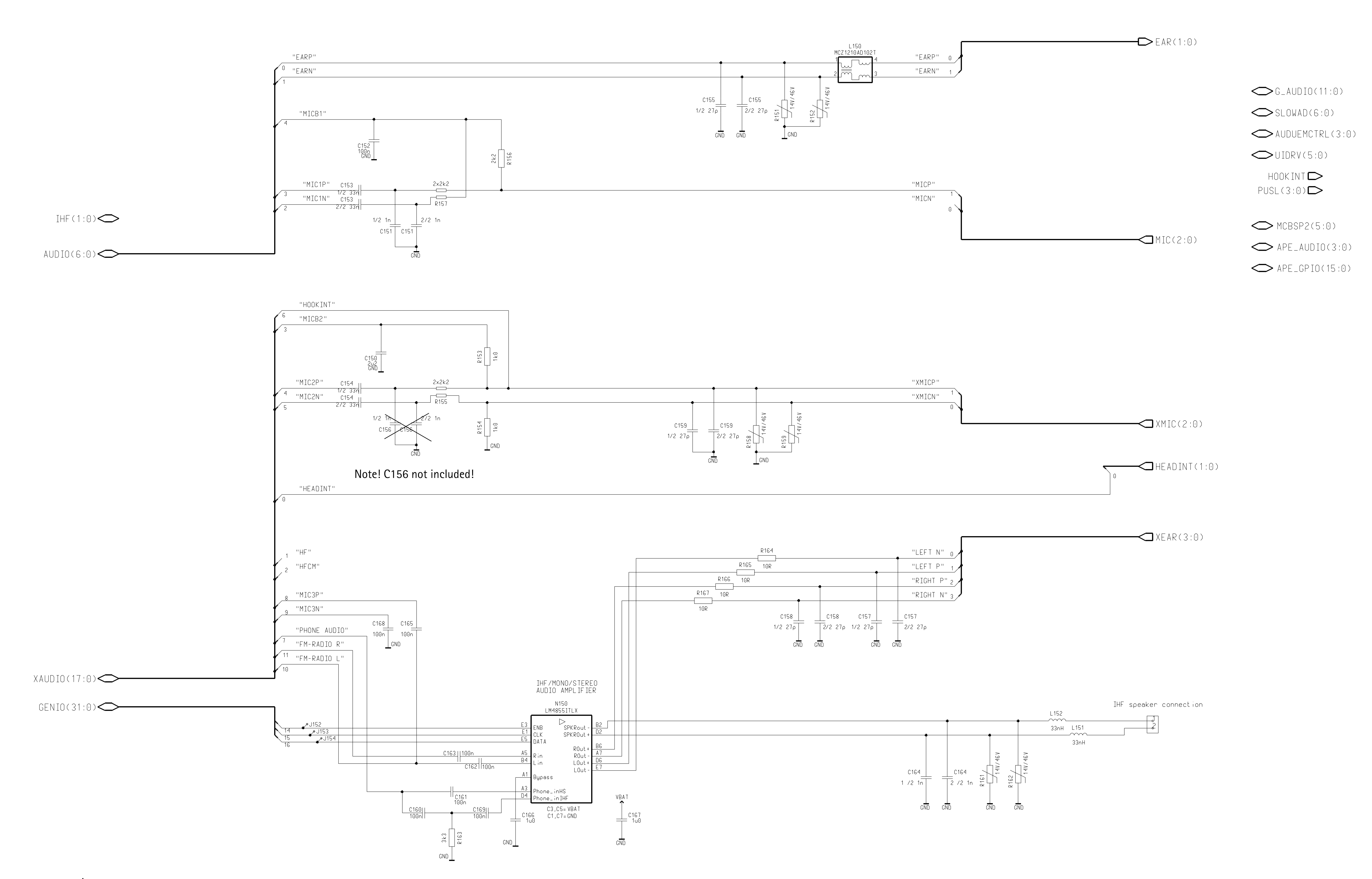


OUT

RF BB Interface

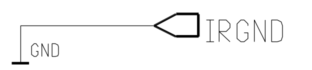


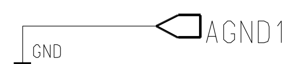
Audio

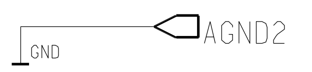


EAR(1:0)
MIC(2:0)
IHF(1:0)
AUDIO(6:0)
G_AUDIO(11:0)
SLOWAD(6:0)
AUDUEMCTRL(3:0)
UIDRV(5:0)
HOOKINT
PUSL(3:0)
MCBSP2(5:0)
APE_AUDIO(3:0)
APE_GPIO(15:0)
XMIC(2:0)
HEADINT(1:0)
XEAR(3:0)
XAUDIO(17:0)
GENIO(31:0)
Note! C156 not included!
IHF/MONO/STEREO AUDIO AMPLIFIER
N150 LM4855ITLX
IHF speaker connection

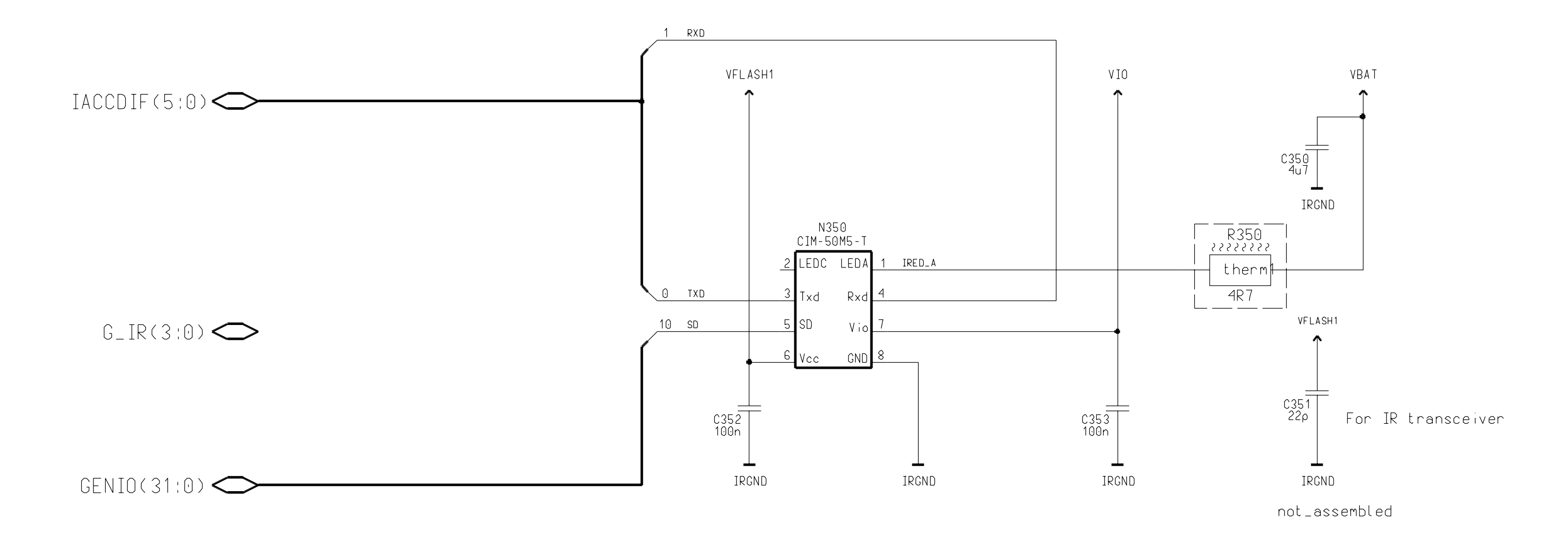
Multi GND



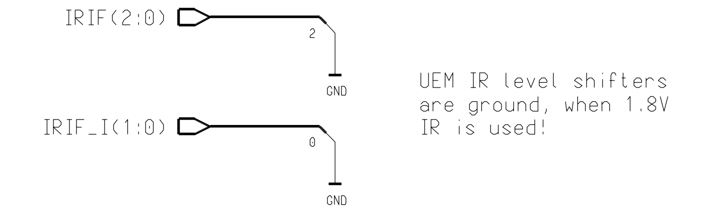




IR Module



GPIO(31:0)

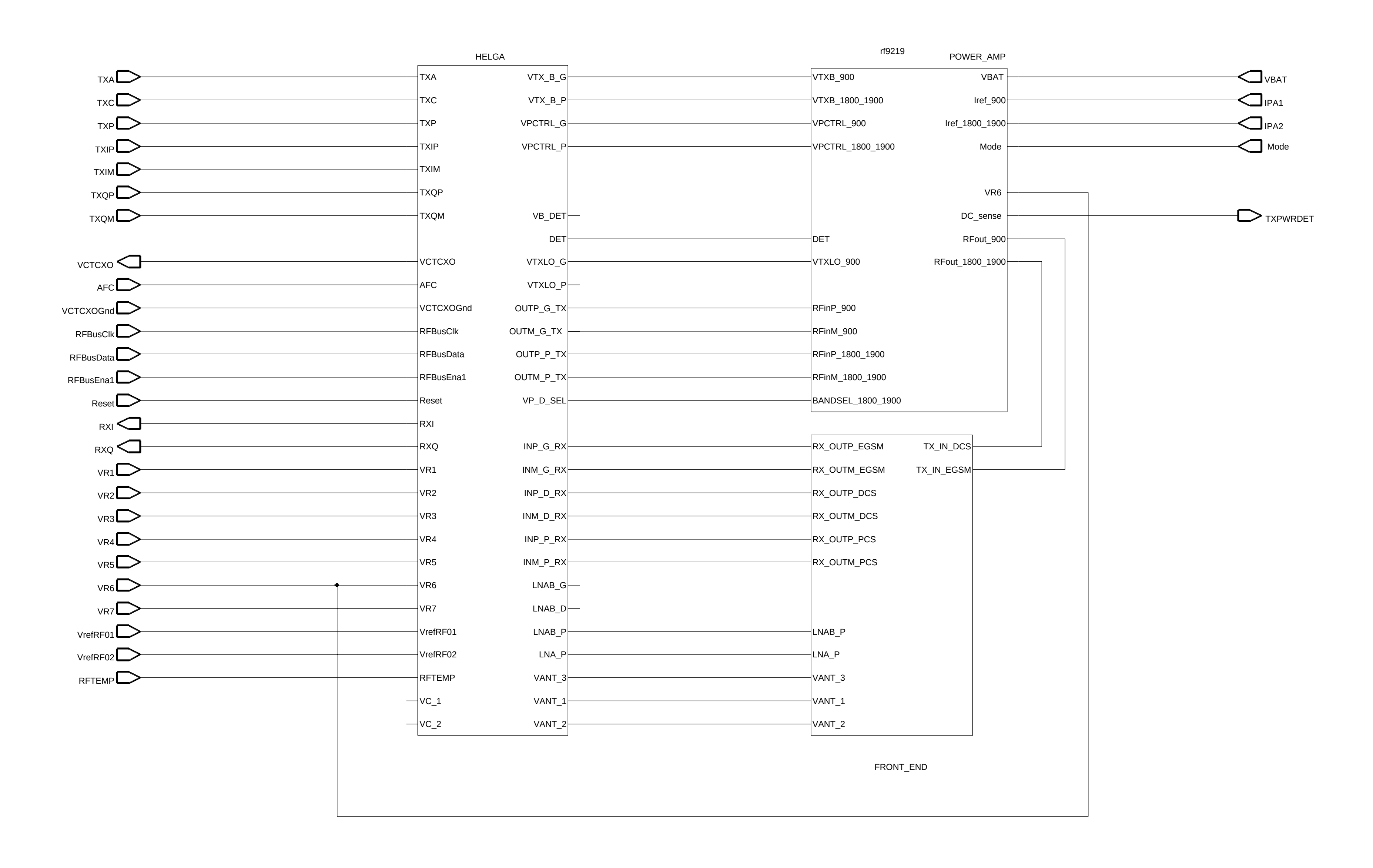


UEM IR level shifters
are ground, when 1.8V
IR is used!

Used referenses

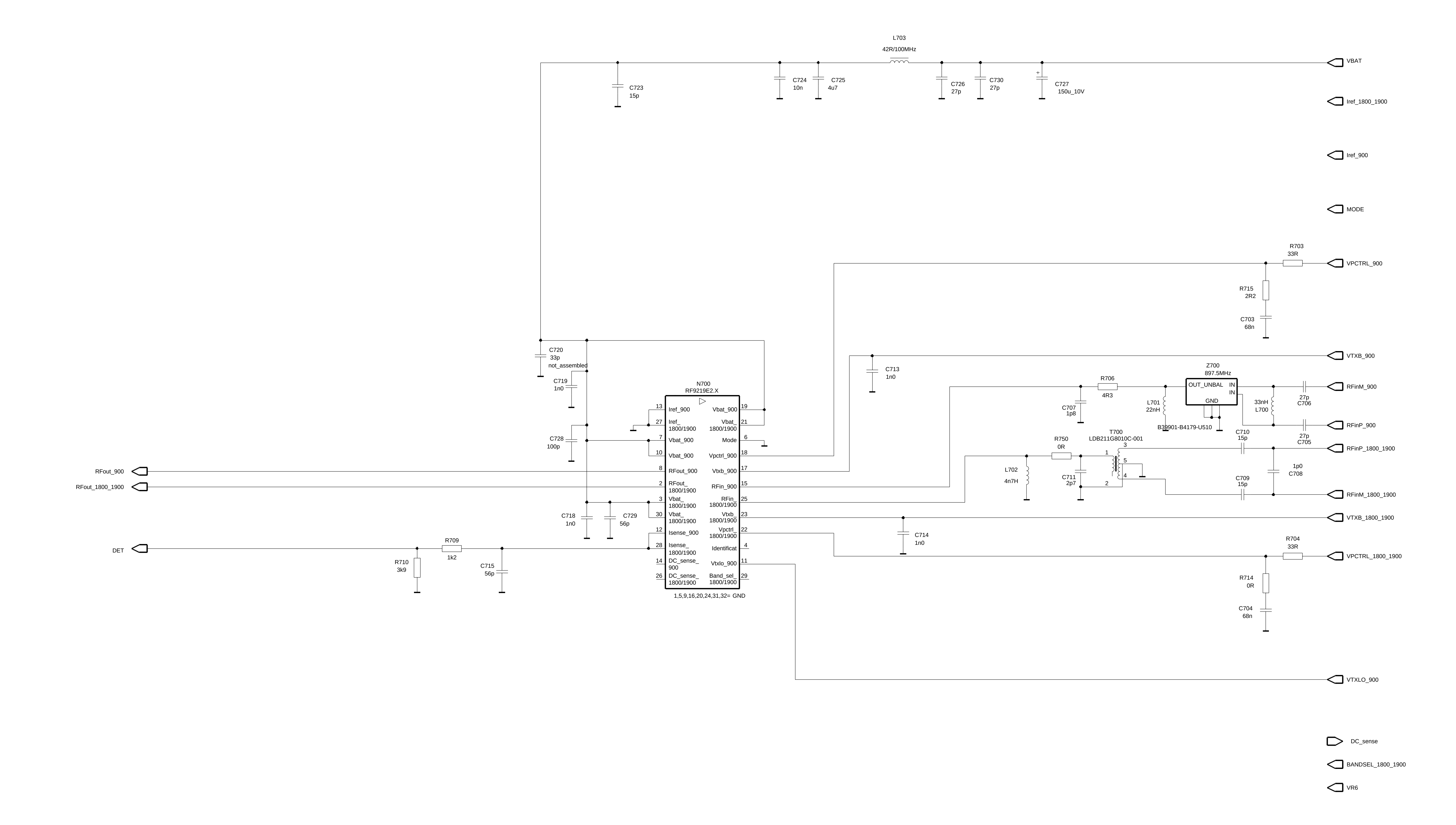
C 350 - 353
N 350
R 350

RF

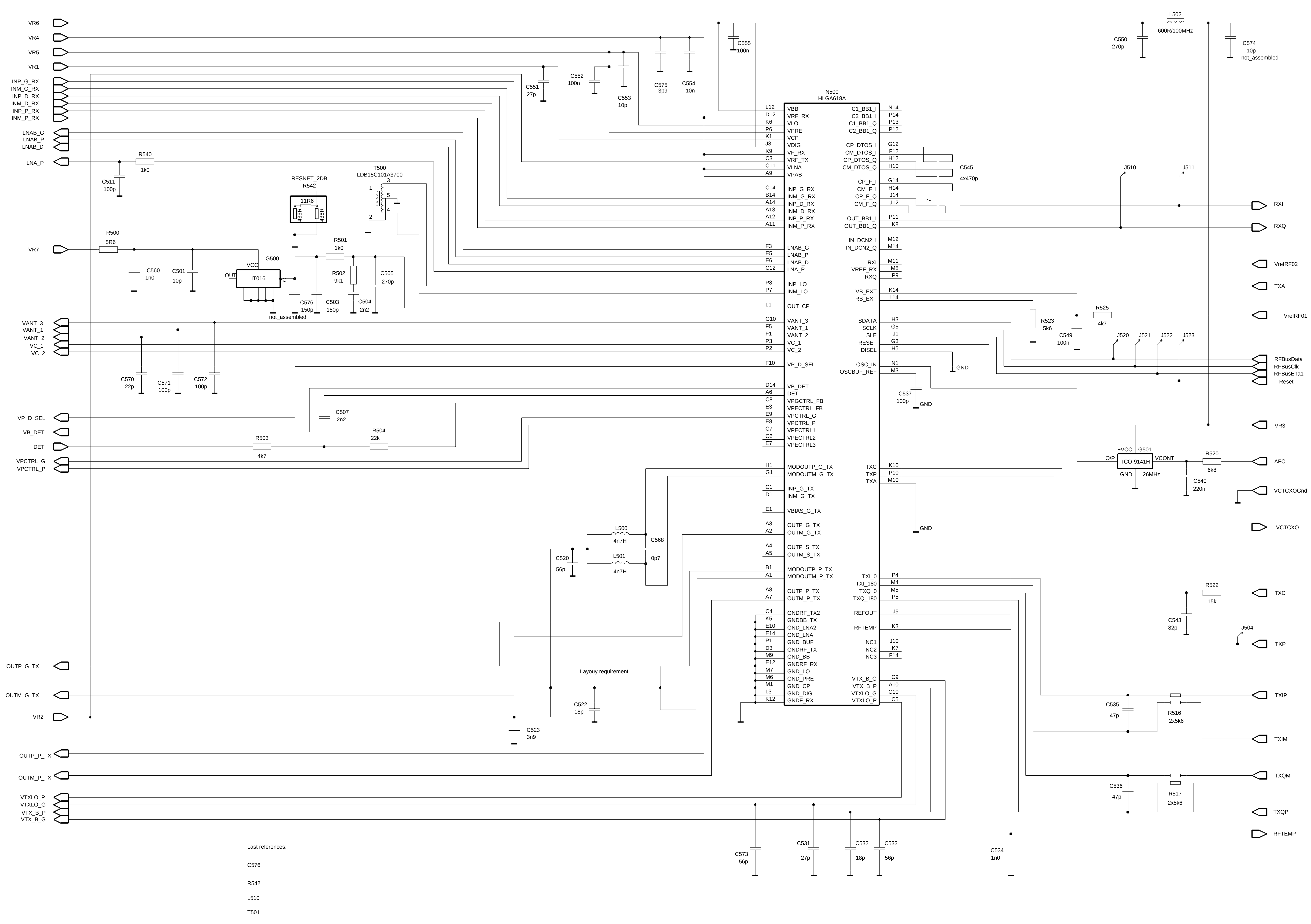

HELGA
rf9219
POWER_AMP
FRONT_END
TXA
TXC
TXP
TXIP
TXIM
TXQP
TXQM
VCTCXO
AFC
VCTCXOGnd
RFBusClk
RFBusData
RFBusEna1
Reset
RXI
RXQ
VR1
VR2
VR3
VR4
VR5
VR6
VR7
VrefRF01
VrefRF02
RFTEMP
VC_1
VC_2
VTX_B_G
VTX_B_P
VPCTRL_G
VPCTRL_P
VB_DET
DET
VTXLO_G
VTXLO_P
OUTP_G_TX
OUTM_G_TX
OUTP_P_TX
OUTM_P_TX
VP_D_SEL
INP_G_RX
INM_G_RX
INP_D_RX
INM_D_RX
INP_P_RX
INM_P_RX
LNAB_G
LNAB_D
LNAB_P
LNA_P
VANT_3
VANT_1
VANT_2
VTXB_900
VTXB_1800_1900
VPCTRL_900
VPCTRL_1800_1900
VTXLO_900
RFinP_900
RFinM_900
RFinP_1800_1900
RFinM_1800_1900
BANDSEL_1800_1900
VBAT
Iref_900
Iref_1800_1900
Mode
DC_sense
RFout_900
RFout_1800_1900
RX_OUTP_EGSM
RX_OUTM_EGSM
RX_OUTP_DCS
RX_OUTM_DCS
RX_OUTP_PCS
RX_OUTM_PCS
TX_IN_DCS
TX_IN_EGSM
IPA1
IPA2
TXPWRDET

RF Shields and Vias

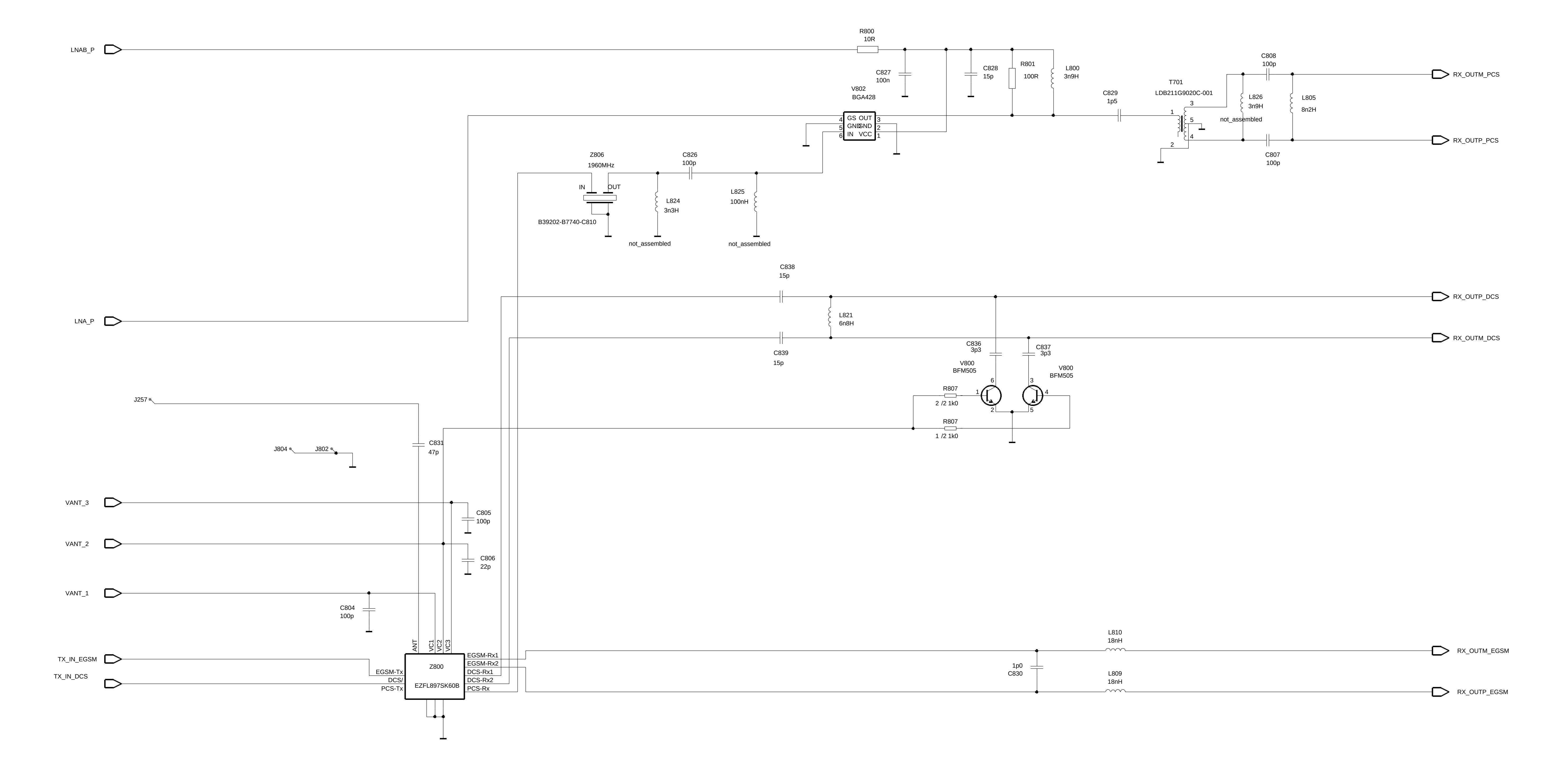
Power Amplifier and Detection



HELGA



RX Front End and Antenna Switch



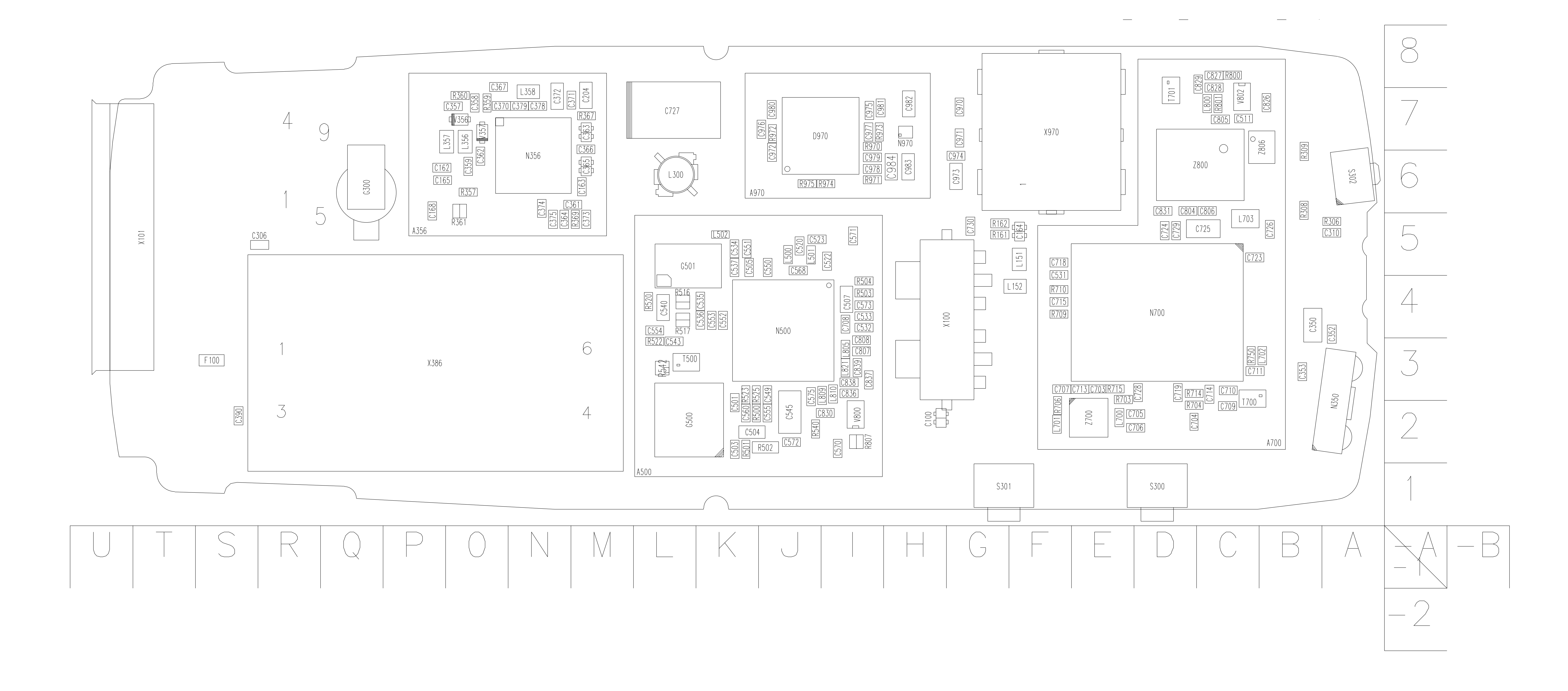
Last references:

C835

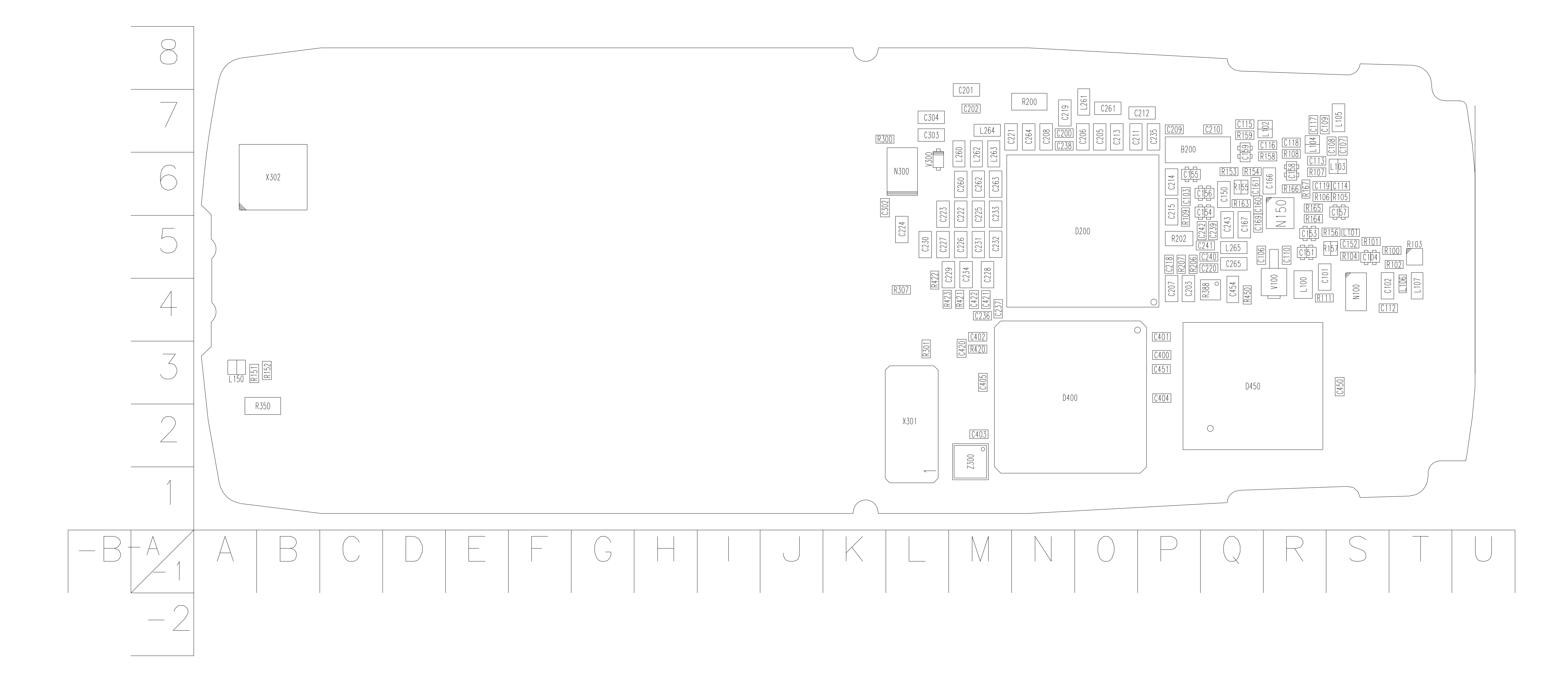
R807

L825

Assembly Values Diagram Bottom



Assembly Values Diagram Top



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